



450-300 2.1

34-32

Chart 11389 NM 33/02 PORT ST. JOE AND PANAMA CITY HARBOR CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 2002 CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS LEFT MIDDLE
OUTSIDE HALF OF
QUARTER CHANNEL RIGHT OUTSIDE QUARTER LENGTH (NAUT. MILES) DEPTH MLLW (FEET) WIDTH NAME OF CHANNEL DATE OF SURVEY (FEET) PORT ST. JOE HARBOR 4-00, 6-01 ENTRANCE CHANNEL 24.8 28.0 21.0 300-500 8.0 35-37 27.8 NORTH CHANNEL 4-00 300 27.3 27.8 4.1 35 TURNING BASIN 25.9 26.3 27.1 4-00 650 0.3 32 HARBOR CHANNEL 26.2 25.5 25.7 4-00 250 0.3 35 SOUTH CHANNEL 200 27 Α 1.1 PANAMA CITY HARBOR

3-02; 5-02

A. NOT MAINTAINED NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

30.8

29.2

ENTRANCE CHANNEL

Chart 11390 (Side A)						N	M 33/02					
	PANAMA CITY HARBOR CHANNEL DEPTHS											
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 2002												
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS												
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)					
PANAMA CITY HARBOR ENTRANCE CHANNEL	29.2	30.8	23.8	3-02; 5-02	450-300	2.1	34-32					
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION												

Chart 11391						N:	M 33/02				
PANAMA CITY HARBOR CHANNEL DEPTHS											
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF MAY 2002											
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS											
NAME OF CHANNEL	OUTSIDE H		RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)				
PANAMA CITY HARBOR ENTRANCE CHANNEL	29.2 3	30.8	23.8	3-02; 5-02	450-300	2.1	34-32				
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION											

<u>Chart 11537</u> NM 33/02

TABULATED FROM	CAPE FEAR RIVER CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO JUN 2002										
CONTROLLING DEPTHS FROM SEA	WARD IN F	EET AT M	EAN LOWE	R LOW W	ATER (MLLW)	PROJE	ECT DIMEN	NSIONS			
NAME OF CHANNEL	NAME OF CHANNEL LEFT RIGHT RIGHT OUTSIDE INSIDE INSIDE OUTSIDE DATE OF SURVE QUARTER QUARTER QUARTER QUARTER										
BALDHEAD SHOAL	36.2	38.3	36.9	32.6	8,10-01	500	5.0	40			
SMITH ISLAND	45.2	45.5	45.4	40.1	6-02	500	1.0	40			
BALDHEAD CASWELL CHANNEL	44.8	45.2	44.2	44.4	2-02	500	0.4	40			
SOUTHPORT CHANNEL	43.5	45.1	44.9	44.1	1-02	500	1.0	40			
BATTERY ISLAND CHANNEL	45.1	44.2	44.7	44.1	2-02	500	0.5	40			
LOWER SWASH	41.5	42.2	41.5	41.3	5-02	400	1.6	38			
SNOWS MARSH	42.1	41.8	40.4	40.5	9,11-01;1-02	400	3.1	38			
HORSESHOE SHOAL	40.4	42.7	42.2	40.8	5-02	400	1.2	38			
REAVES POINT	35.8	37.8	37.2	35.5	3-02	400	1.2	38			
LOWER MIDNIGHT	35.5	38.4	38.6	34.0	3-02	400	1.6	38			
UPPER MIDNIGHT	36.7	37.6	38.3	36.2	3-02	400	2.7	38			
LOWER LILLIPUT	37.1	36.8	36.9	35.3	3-02	400	1.9	38			
UPPER LILLIPUT	35.7	37.1	37.0	35.8	3-02	400	1.9	38			
KEG ISLAND	37.5	39.0	37.4	34.7	3-02	400	1.4	38			
BIG ISLAND LOWER	39.7	42.4	43.6	43.1	3-02	400	0.8	38			
BIG ISLAND UPPER	41.1	42.9	43.5	37.5	3-02	400	0.5	38			
LOWER BRUNSWICK	37.7	38.3	38.9	37.8	4-02	400	1.6	38			
UPPER BRUNSWICK	34.1	39.7	39.7	36.8	4-02	400	1.0	38			
FOURTH EAST JETTY	36.7	38.6	39.0	36.5	4-02	400	1.2	38			
BETWEEN CHANNEL	32.2	39.7	39.1	36.2	4-02	550	0.8	38			
ANCHORAGE BASIN & APP CHANNEL	29.8	35.9	35.9	32.2	4-02	450-1090	1.3	38			
HWY 74-76 TO BATTLESHIP	27.1	32.7	35.5	24.3	4-02	400	0.6	32			
BATTLESHIP TO HWY 117 INCLUDING											
TURNING BASIN	10.8	29.6	31.1	24.7	4-02	190-850	-	32			
HWY 117 TO HILTON BR	26.7	30.4	31.0	30.7	4-02	200-400	0.5	32			
THENCE TO END OF PROJECT AT											
34°16'36"N, 77°57'01"W	23.1	23.6A	23.5B	21.9C	6-99	200	1.2	25			
TURNING BASIN	24.6	21.0	22.2	16.1	6-99	500	0.1	25			

A. EXCEPT FOR SHOALING TO 21.4 FEET FOR THE LAST 150 FEET OF THE PROJECT.
B. EXCEPT FOR SHOALING TO 16.4 FEET FOR THE LAST 150 FEET OF THE PROJECT.

Chart 12222 NM 33/02 HAMPTON AND PHOEBUS CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO SEP 2001 CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS LEFT MIDDLE RIGHT LENGTH DEPTH WIDTH NAME OF CHANNEL OUTSIDE QUARTER HALF OF CHANNEL OUTSIDE DATE OF SURVEY (NAUT. MILES) MLLW (FEET) (FEET) HAMPTON R. ENTRANCE CHANNEL 12.2 13.1 11.7 9-01 200 12 1.1 HAMPTON REACH 10.6 12.2 10.9 9-01 150 1.2 12 SUNSET CREEK A12.6 A11.3 100-80 0.5 12 PHOEBUS CHANNEL 12.3 12.0 10-90 150 0.7 12 A. EXCEPT FOR SHOALING TO 6.6 FEET FOR THE LAST 150 FEET OF THE PROJECT. NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 12245 NM 33/02

HAMPTON AND PHOEBUS CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO SEP 2001											
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS											
NAME OF CHANNEL LEFT MIDDLE RIGHT OUTSIDE HALF OF OUTSIDE DATE OF SURVEY QUARTER CHANNEL QUARTER MIDTH (NAUT. MILLW (FEET) MILES) (FEET)											
HAMPTON R. ENTRANCE CHANNEL 12.2 13.1 11.7 9-01 200 1.1 12 HAMPTON REACH 10.6 12.2 10.9 9-01 150 1.2 12 SUNSET CREEK 12.0 A12.6 A11.3 9-01 100-80 0.5 12 PHOEBUS CHANNEL 12.3 12.0 11.3 10-90 150 0.7 12											

A. EXCEPT FOR SHOALING TO 6.6 FEET FOR THE LAST 150 FEET OF THE PROJECT.

B. EXCEPT FOR SHOALING TO 16.4 FEET FOR THE LAST 150 FEET OF THE PROJECT.
C. EXCEPT FOR SHOALING TO 10.2 FEET FOR THE LAST 150 FEET OF THE PROJECT.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 12252 NM 33/02 JAMES RIVER TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS SURVEYS TO NOV 2001 CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) DEPTH MLLW (FEET) NAME OF CHANNEL DATE OF SURVEY (FEET) HOPEWELL TO RICHMOND DEEPWATER TERMINAL 200 6-01 24.7 37°27'05.0"N, 77°25'07.4"W CHANNEL ADJOINING TURNING BASIN 11-01 24.7 200 TURNING BASIN 24.4 11-01 385 THENCE TO RICHMOND HARBOR TURNING BASIN 16.9 200 10-99;2-00 TURNING BASIN 16.6 140-175 10-99 THENCE TO 37°31'29.0'N, 77°25'14.5'W 17.8 200 10-99 NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGING CONDITIONS SUBSEQUENT TO THE ABOVE

Chart 13270 NM 33/02 TOWN RIVER CHANNEL DEPTHS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 2002 AND SURVEYS TO OCT 2000 - NOV 2001 CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS MIDDLE HALF OF RIGHT OUTSIDE LENGTH DEPTH NAME OF CHANNEL OUTSIDE DATE OF SURVEY (NAUT. MILES) MLLW (FEET) QUARTER CHANNEL QUARTER (FEET) TOWN RIVER: ENTRANCE CHANNEL 29.5 30.0 28.4 10-00, 11-01 300 0.7 35 HOLE POINT REACH 32.8 10-00, 11-01 32.0 33.2 300 0.5 35 QUINCY REACH 10-00, 11-01 100 A7.7 1.1 8.5 0.2 15 A. EXCEPT FOR SHOALING TO 0.8 FEET IN FINAL 50 FEET OF CHANNEL. NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18521

COLUMBIA RIVER CHANNEL DEPTHS
ENTRANCE TO MILLER SANDS RANGE
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MAY 2002

* SEE FOOTNOTE PROJECT DIMENSIONS

	* SEE FOOT	NOTE				PROJECT DIMENSIONS			
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE OUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH * (MILES)	DEPTH * (FEET)	
ENTRANCE RANGE	55	56	51	43	3-02	2640	3.3	48	
SAND ISLAND RANGE									
(CLATSOP SPIT)	50	53	50	44	3-02	2640	2.2	48	
LOWER DESDEMONA SHOAL	43	34	27	15	3,4,5-02	600	3.4	40	
UPPER DESDEMONA SHOAL	44	46	46	45	5-02	600	3.7	40	
TANSY POINT TURN AND RANGE	41	40	41	38	5-02	600	4.7	40	
ASTORIA RANGE	42	41	42	43	5-02	600	2.7	40	
TONGUE POINT CHANNEL	39	42	42	41	5-02	600	2.2	40	
HARRINGTON POINT RANGE	40	40	39	40	5-02	600	2.6	40	
MILLER SANDS RANGE	37	42	41	39	5-02	600	2.2	40	

^{*} CONTROLLING DEPTHS IN CHANNELS ENTERING FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER FROM THE ENTRANCE TO HARRINGTON POINT AND COLUMBIA RIVER DATUM ABOVE THAT POINT. PROJECT LENGTHS ARE IN STATUTE MILES.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18523 NM 33/02

COLUMBIA RIVER CHANNEL DEPTHS MILLER SANDS RANGE TO GULL ISLAND TURN AND CHANNEL											
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MAY 2002											
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM (CRD) PROJECT DIMENSIONS											
NAME OF CHANNEL LEFT LEFT RIGHT RIGHT OUTSIDE INSIDE INSIDE OUTSIDE OUARTER QUARTER QUARTER QUARTER QUARTER DATE OF SURVEY WIDTH (FEET) WILENGTH DEPTH (STAT. CRD MILES) (FEET)											
MILLER SANDS RANGE 37 42 41 39 5-02 600 2.2 40											
PILLAR ROCK LOWER RANGE 35 39 38 40 5-02 600 3.0 40											
PILLAR ROCK UPPER RANGE 38 43 42 42 5-02 600 1.9 40											
WELCH ISLAND REACH 42 41 44 38 5-02 600 3.2 40											
SKAMOKAWA CHANNEL	34	42	41	39	5-02	600	3.3	40			
STEAMBOAT REACH	47	47	41	42	5-02	600	1.4	40			
PUGET ISLAND RANGE AND TURN	41	42	40	37	5-02	600	3.5	40			
WAUNA RANGE	40	40	39	39	5-02	600	2.2	40			
DRISCOLL RANGE	41	41	41	41	5-02	600	1.7	40			
WESTPORT TURN AND RANGE	40	42	42	42	5-02	600	2.0	40			
WESTPORT CHANNEL	37	40	38	37	5-02	600	2.4	40			
EUREKA LOWER CHANNEL	45	44	42	41	5-02	600	2.1	40			
EUREKA UPPER CHANNEL	43	42	43	43	5-02	600	0.8	40			
OAK POINT CHANNEL	45	45	45	45	5-02	600	2.4	40			
GULL I TURN AND CHANNEL	46	44	43	41	5-02	600	2.2	40			
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION											

Chart 18524 NM 33/02 COLUMBIA RIVER CHANNEL DEPTHS
GULL ISLAND TURN AND CHANNEL TO SAINT HELENS TURN TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MAY 2002 CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM (CRD) PROJECT DIMENSIONS LENGTH DEPTH LEFT LEFT RIGHT RIGHT WIDTH OUTSIDE INSIDE QUARTER INSIDE OUTSIDE QUARTER QUARTER (STAT. CRD (FEET) NAME OF CHANNEL DATE OF SURVEY GULL I TURN AND CHANNEL 44 43 41 40 5-02 STELLA RANGE 38 40 40 5-02 600 2.8 40 FISHER I CHANNEL 39 40 43 40 4,5-02 600 0.9 40 WALKER I CHANNEL 38 39 41 37 4-02 600 1.5 40 BARLOW PT. CHANNEL 44 46 44 41 4-02 600 1.3 40 SLAUGHTERS CHANNEL 42 40 39 40 4-02 600 2.5 40 SLAUGHTERS TURN AND CHANNEL OPPOSITE THE TURNING BASIN 4-02 39 39 39 38 600 1.7 40 COTTONWOOD ISLAND LOWER RANGE 38 38 38 38 4-02 600 1.7 40 COTTONWOOD ISLAND TURN 41 41 41 4-02 600 2.7 39 40 COTTONWOOD ISLAND UPPER RANGE AND TURN 4-02 KALAMA LOWER RANGE 41 43 42 38 4-02 600 1.8 40 KALAMA UPPER RANGE 40 39 40 37 4-02 600 2.2 40 BYBEE LEDGE CHANNEL 41 42 44 40 4-02 600 2.1 40 40 37 MARTIN ISLAND CHANNEL 39 40 4-02 600 2.1 40 MARTIN ISLAND RANGE 42 41 43 42 600 4-02 1.4 40 COLUMBIA CITY CHANNEL 42 41 42 41 4-02 600 1.2 40 ST. HELENS RANGE 40 40 40 38 4-02 600 2.0 40 ST. HELENS TURN 42 39 36 4-02 600 1.7 40 NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

0.9

27

Chart 18525 NM 33/02 COLUMBIA RIVER CHANNEL DEPTHS SAINT HELENS TURN TO TOMAHAWK BAR TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO MAY 2002 CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM (CRD) PROJECT DIMENSIONS LEFT LEET RIGHT RIGHT LENGTH DEPTH WIDTH (FEET) OUTSIDE INSIDE QUARTER INSIDE OUTSIDE QUARTER QUARTER (STAT. MILES) CRD (FEET) NAME OF CHANNEL DATE OF SURVEY ST. HELENS TURN 42 43 39 36 1.7 4-02 600 40 WARRIOR ROCK RANGE 39 40 40 42 5-02 600 1.3 40 DUCK CLUB TURN 41 41 42 43 5-02 600 1.4 40 HENRICI RANGE 41 41 41 41 5-02 2.6 40 FALES CHANNEL 42 39 5-02 1.1 40 KNAPP POINT CHANNEL 41 41 39 39 4,5-02 600 1.8 40 WILLOW LOWER RANGE 39 41 40 41 4-02 600 2.1 40 44 43 42 WILLOW UPPER RANGE 45 41 4-02 600 1.1 40 45 41 44 46 49 MORGAN TURN 49 4-02 600 1.0 40 43 47 1.5 1.0 MORGAN CHANNEL 42 4-02 600 40 VANCOUVER LOWER CHANNEL 40 53 53 500 4-02 VANCOUVER RANGE 41 41 40 500 1.3 41 4-02 40 VANCOUVER UPPER CHANNEL 43 42 42 42 500 0.9 40 4-02 VANCOUVER LOWER TURNING BASIN 39 41 35 39 4-02 800 1.0 40

4-02

VANCOUVER UPPER TURNING BASIN

TOMAHAWK BAR

Chart 18526 COLUMBIA RIVER CHANNEL DEPTHS MORGAN CHANNEL TO TOMAHAWK BAR TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 2002											
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT COLUMBIA RIVER DATUM (CRD) PROJECT DIMENSIONS											
NAME OF CHANNEL LEFT LEFT RIGHT RIGHT OUTSIDE INSIDE INSIDE OUTSIDE OUARTER QUARTER QUARTER QUARTER DATE OF SURVEY (FEET) MILES) (FEET)											
MORGAN CHANNEL	43	46	41	42	4-02	600	1.5	40			
VANCOUVER LOWER CHANNEL	47	49	53	53	4-02	500	1.0	40			
VANCOUVER RANGE	41	41	40	41	4-02	500	1.3	40			
VANCOUVER UPPER CHANNEL	43	42	42	42	4-02	500	0.9	40			
VANCOUVER LOWER TURNING BASIN	35	39	39	41	4-02	800	1.0	40			
VANCOUVER UPPER TURNING BASIN	33	29	29	31	4-02	800	0.9	35			
TOMAHAWK BAR	18	18	18	17	10-01	300	3.7	27			

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18581						N	M 33/0			
Y.	AQUINA BA	y and riv	ER CHANN	NEL DEPTH\$						
TABULATED FROM SUI	RVEYS BY	THE CORP	S OF ENG	INEERS - SURVEYS	TO APR 2002					
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS										
NAME OF CHANNEL LEFT MIDDLE RIGHT OUTSIDE HALF OF OUTSIDE QUARTER CHANNEL OUARTER DATE OF SURVEY WIDTH (NAUT. MLLW (FEET) MILES) (FEET)										
CHANNEL ENTRANCE 44°36'23"N, 124°05'24"W										
TO FIRST TURN	26	30	25	4-02	400-300	1.3	40-30			
THENCE TO TURNING BASIN	28	28	25	4-02	300-400	1.3	30			
TURNING BASIN	18	23	24	4-02	300-1200	0.3	30			
THENCE TO YAQUINA	13	12	12	6-00	200	1.6	18			
THENCE TO END OF PROJECT	2A	07	5B	7-98;7-00;11-00	150	9.7	10			
A. SHOAL TO BARE AT 44°36′57.89°N, 123°56′34.87°W. B. SHOAL TO BARE FROM 44°36′49.6°N, 123°56′55.4°W TO 44°36′57.3°N, 123°56′42.7°W. NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION										

Chart 18583 NM 33/02

SIUSLAW RIVER										
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF OCT 2001 AND SURVEYS TO MAR 2002										
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS										
NAME OF CHANNEL OUTSIDE HALF OF OUTSIDE DATE OF SURVEY (FEET) MILES) (FEET)										
ENTRANCE TO HIGHWAY BRIDGE	9	10	11	3-02	300-200	5.0	18-16			
TURNING BASIN	10	8	6	3-02	400	0.3	16			
TURNING BASIN TO CUSHMAN	8	9	9	7-99;3-02	150	2.1	12			
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION										

Chart 18588 NM 33/02

TARLILATED FROM SURVEYS RY		QUILLE RIV			AND SURVEY	'AM OT PV	V 2002			
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUN 2002 AND SURVEYS TO MAY 2002										
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS										
NAME OF CHANNEL LEFT MIDDLE RIGHT OUTSIDE HALF OF OUTSIDE DATE OF SURVEY QUARTER CHANNEL QUARTER DATE OF SURVEY WIDTH (NAUT. MILLW (FEET)										
A ENTRANCE CHANNEL ENTRANCE CHANNEL TO PORT DOCK	12	14	13	5-02	200	0.33	13.0			
(43°07'15.9"N, 124°24'50.5"W)	14	13	8	5-02	200	0.63	13.0			
THENCE TO END OF PROJECT	12	14	14	5-02	150	0.38	13.0			

A. THE ENTRANCE CHANNEL IS SUBJECT TO FREQUENT CHANGES AND THE DEEPEST WATER IS NOT ALWAYS ON THE RANGE.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

Chart 18649 NM 33/02

	CAKLAND OUTER AND INNER HARBORS											
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 2002												
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS												
NAME OF CHANNEL LEFT LEFT RIGHT RIGHT OUTSIDE INSIDE OUTSIDE OUARTER QUARTER QUARTER QUARTER DATE OF SURVEY WIDTH (NAUT. MILLW MILES) (FEET)												
BAR CHANNEL 40.1 42.1 40.5 40.1 4-02 1000-930 0.57 42												
OUTER HARBOR ENTRANCE CHANNEL	38.7	41.2	41.7	38.8	4-02	900-600	0.91	42				
OUTER HARBOR	39.4	39.6	40.9	39.9	4-02	1575-600	1.40	42				
INNER HARBOR												
ENTRANCE CHANNEL	41.0	41.3	40.9	40.3	4-02	2100-480	1.10	42				
INNER HARBOR REACH	41.2	41.3	41.0	40.4	4-02	1325-480	2.27	42				
GROVE ST PIER TO												
BROOKLYN BASIN	A22.3	33.4	34.5	B24.2	2-01;4-02	600	1.30	42				
BROOKLYN BASIN SOUTH CHANNEL	C14.4	22.8	23.7	D9.7	2-01	600-500	0.90	42				
PARK ST BRIDGE REACH	13.9	20.3	23.5	11.3	7-86;3-88	500-275	0.42	42				

- A. A DEPTH OF 32.9 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUARTER.
 B. A DEPTH OF 33.0 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUARTER.
 C. A DEPTH OF 19.5 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUARTER.
 D. A DEPTH OF 19.0 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUARTER.

- NOTE CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

NM 33/02 Chart 18650

TABULATED FROM	OAKLAND OUTER AND INNER HARBORS TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO APR 2002											
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) PROJECT DIMENSIONS												
NAME OF CHANNEL LEFT LEFT RIGHT RIGHT OUTSIDE INSIDE OUTSIDE DATE OF SURVEY OUARTER QUARTER OUARTER OUARTER LEFTH LEFTH DEPTH (NAUT. MILLW (FEET) MILES) (FEET)												
BAR CHANNEL 40.1 42.1 40.5 40.1 4-02 1000-930 0.57 42												
OUTER HARBOR ENTRANCE CHANNEL	38.7	41.2	41.7	38.8	4-02	900-600	0.91	42				
OUTER HARBOR	39.4	39.6	40.9	39.9	4-02	1575-600	1.40	42				
INNER HARBOR												
ENTRANCE CHANNEL	41.0	41.3	40.9	40.3	4-02	2100-480	1.10	42				
INNER HARBOR REACH	41.2	41.3	41.0	40.4	4-02	1325-480	2.27	42				
GROVE ST PIER TO												
BROOKLYN BASIN	BROOKLYN BASIN A22.3 33.4 34.5 B24.2 2-01;4-02 600 1.30 42											
BROOKLYN BASIN SOUTH CHANNEL	C14.4	22.8	23.7	D9.7	2-01	600-500	0.90	42				
PARK ST BRIDGE REACH	13.9	20.3	23.5	11.3	7-86;3-88	500-275	0.42	42				

A. A DEPTH OF 32.9 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUARTER.
B. A DEPTH OF 33.0 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUARTER.
C. A DEPTH OF 19.5 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUARTER.
D. A DEPTH OF 19.0 FEET WAS AVAILABLE IN THE INSIDE HALF OF THE QUARTER.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

OAKLAND	INNER HAR	BOR	
TABULATED FROM SURVEYS BY THE COR	RPS OF EN	GINEERS - SUF	RVEYS TO APR 200
CONTROLLING DEPTHS FROM SEAWA	RD IN FEE	T AT MEAN LC	WER LOW WATER
NAME OF CHANNEL	DEPTH MLLW (FEET)	WIDTH (FEET)	DATE OF SURVEY
INNER HARBOR: GROVE ST. PIER TO BROOKLYN BASIN	22.3	600	2-01;4-02
BROOKLYN BASIN SOUTH CHANNEL PARK ST. BRIDGE REACH	9.7 11.3	600-500 500-275	2-01,7-62 2-01 7-86;3-88